

ew will put on a half pound per day. Don't give up your sheep whatever you do.

## POULTRY.

### Feed for Young Chickens.

Mrs. Will Johnson, in National Stockman: In my early years of poultry keeping I sorely felt the need of a food for young chickens and turkeys that was inexpensive and also a promoter of growth and health. The old way of feeding corn meal wet up with water was a very unsatisfactory way with me. Hard boiled eggs for the first few days I considered too expensive. A variety of food as advocated by many of our successful poultry raisers was out of the reach of a farmer's wife remote from city market; besides I like to use the means at hand. In our large family we have numerous scraps of bread; these I soak in skim milk and afterwards mix with corn meal and wheat bran, one part of the former to two of the latter by measure.

There may seem to be nothing extraordinary about this food but I feed it exclusively to my chickens and turkeys from the day they are hatched until they are old enough to eat grain with the old fowls. I raise the young turkeys with the turkey hens, without cooping, but the chickens I coop for a week or so, then close them in at night only. I have used this food for seven or eight years with good success. Have had no trouble with cholera or diarrhoea among my young stock, and the gapes are almost a thing of the past.

I place the food on a clean board to be eaten. I think that much damage is often done by throwing food in coops where much of the excrement of the flock is taken up and eaten with the food by the chicks. This acts as a poison to their systems and is detrimental to the health of old fowls as well as young.

Grit for the young stock is an important item in their raising. I may excite the criticisms of some by saying that I never water in coops. The water is sure to get spilled; besides this feed being moist dispenses with the necessity of watering and birds are not so liable to have gapes as they are if allowed to paddle in a dish of water. Our poultry yards are constantly supplied with fresh water, to which the chicks have access when old enough to follow the hen.

During the hatching season the drain on my bread scraps is very great, as I raise a large number of chickens and turkeys every year, but I save up the scraps which accumulate during the winter months; after drying I preserve them in sacks for their days of usefulness as a poultry food. This may seem like extravagance to many housekeepers who fix over their bread scraps and make such palatable dishes of them, but I prefer to eat my stale bread in the shape of a nice young chicken.

With the warm weather begins the warfare against those little red mites that infest our poultry houses; they are "mity" sure. How many of The Stockman readers keep their poultry houses entirely free of these pests? How do you do so? Whitewash, kerosene emulsions and hot water, with "eternal vigilance" are my remedies, and even then they sometimes establish a stronghold before I suspect their presence.

### Signs of Health and Disease in Poultry.

Wisconsin Agriculturist: When fowls are judiciously fed, made to take exercise and their quarters kept clean and free from lice, there is comparatively no trouble with sickness except in cases of contagion.

Poultry raisers should learn the causes of diseases, how to prevent them, and there will be no need of medicines in the poultry yard.

When the combs and wattles of the fowls are of a bright red color it indicates a condition of health.

When the fowls are busy scratching, the hens laying and singing, and the cocks crowing, are signs of health.

When you can enter the henhouse after dark and hear no wheezing, it proves that there are not any roup fowls in the flock.

When the manure is hard and a portion of it is white, it indicates a healthy condition of the digestive organs.

When the edges of the comb and wattles are of a purplish red and the movements sluggish there is something wrong.

When fowls lie around indifferently to their surroundings they are too fat, and death from apoplexy, indigestion or liver complaint will result unless the trouble is corrected.

When fowls are restless and constantly pecking in their feathers they are infested with vermin.

When young poultry, especially ducklings, appear to have a sore throat and swallowing is difficult it is the symptom of the large grey lice on the neck.

If a fowl has a bilious look with alternate attacks of dysentery and costiveness, it is suffering with liver complaint. A lack of grit, overfeeding and idleness will cause this trouble.

A hospital should be a part of every poultry yard. As soon as a fowl gets sick remove it at once. The trouble with far too many is that they wait until the disease is in its advanced stages before they commence giving medicine. A very sick fowl is difficult to cure and when cured it is seldom of value afterward.

## IN GENERAL.

### What Higher Prices Would Do.

National Stockman: There are not many people who realize what an advance or decline in the prices of live stock means to the producers of this country. Let us look into the figures a little and see what change may be made in aggregate values of farm live stock by even a moderate appreciation or depreciation in prices. Taking the government estimate for farm animals this spring we see that there are upwards of 16,000,000 horses on the farms of this country. An advance of only \$10 per head on these horses would mean an increase in value of nearly \$160,000,000 to the producers. Taking the cattle of the country, a similar advance—equivalent to \$1 per cwt. on 1,000 pound cattle—would show an increase in total valuation of more than \$500,000,000. An advance of \$1 per head on sheep would mean over \$2,000,000, and a similar advance on hogs over \$1,000,000. An advance of 10 cents per bushel on the wheat crop of this country would amount to over \$50,000,000. Of course, values are estimated on the number of animals, etc., actually in the hands of the farmers and not on those sent to market, and this far more than represents the amount which would be actually paid into the hands of producers in any one year on account of these higher prices.

### Conserving Soil Moisture.

Professor Roberts calls attention to experiments in soil tillage which showed that plants cultivated one and one-half inches deep evaporated 2,000 pounds less of water daily than plants having no cultivation. On a heavy clay soil this difference amounted to 4,000 pounds per day per acre. On a light garden soil it amounted to 2,500 pounds daily per acre. Referring to the influence of salt and plaster on the evaporation of water from soil, he says:

"A mixture of equal parts by weight of salt and plaster, applied to the land at the rate of 4,000 pounds per acre, conserved the moisture of the first four inches to the amount of fifteen tons of water per acre; that is to say, the soil which had been treated with this mixture contained, about two weeks after the mixture had been sown, fifteen tons of water per acre in the first four inches more than the adjoining plots which were not treated. This amount of water, it is true, is not large but it was large enough during a drought, when the experiments were conducted, to furnish enough extra moisture to the growing oats to be easily discernible by the growth of the plant. There is not the slightest doubt that a weekly surface cultivation of orchards, from June until the last of August, greatly conserves the water in the soil, while at the same time culture sets free plant food, keeps the lower strata of the soil cool and moist. Wherever the conditions do not forbid surface cultivation it should be practiced extensively in orchards, for the three-fold purpose of conserving moisture, preparing plant food and shading that portion of the soil which is occupied by the roots of the growing plant."

### Miscellaneous Notes.

It is not a bad idea to keep an eye on the way one's neighbors do things if advancement in methods is the thing sought after on the farm.

What we most want to see is the average farm flock of fowls made more profitable. It only requires a little more thought and a little more care to make it so.

When the corn is planted a liberal supply of pumpkin seed should go into the grain box. As much as one-tenth the amount of corn used will not be too much. Some farmers use pumpkin seed for replanting instead of corn.

The most active hens in the flock are usually the best layers. The hen that stands ready to run out of the house in the morning as soon as the door opens, and flies at the feed as if she were starving, is the one that will produce the most eggs commonly. Such a hen will not stand around in the sun after eating her morning feed, but will be seen far away from the house foraging for food.

The early summer is the proper time to think about building a silo and a corn crop should be put in with this end in view. After the corn is in, and it should be planted this month, the detail of the silo can be decided upon and the building constructed at odd times during the summer when other work is not so pushing, although on the average alfalfa farm this time seems never to come.

Professor H. W. Wiley, the chemist of the agricultural department, is conducting a series of experiments to determine the fertility of the typical soils of the United States, which gives promise of the most

far-reaching economic results to the farmers of the country. The ultimate object is to determine the fertilizer necessary to restore the fertility of any soil and to save the farmers the thousands annually spent for fertilizers which do not meet the necessities of the soil to which they are applied. The work was specially authorized by the last session of congress. Here, in the far West, where the question of fertilizers is all in your eye, the experiments are to be devoted to determining soil moisture and how long it may be expected to last without applying water by means of irrigation.

A correspondent of the Indianapolis Journal says he has been a successful potato grower for thirty years. His largest profits have been when there was a general failure, as in 1890, five acres, 75 bushels per acre, at 95 cents, by the wagon load; 1891, four acres, 150 bushels per acre, at 58 cents; 1892, eight acres, 70 bushels per acre, 50 cents; 1893, six acres, 60 bushels per acre, 80 cents (only one rain till September 15); 1894, twelve acres, 800 bushels, 600 bushels now under barn in cellar—Green Mountain and Rural New Yorker. His time of planting is last of May, turning under clover eighteen inches high, on well drained and manured soil. "It's a shame we don't raise enough potatoes for our own state. It will be no better till some farmers stop voting for Andrew Jackson and planting Early Ohio and Early Rose for a field crop, and planting any kind six weeks too soon."

Another god has fallen. The booming which has been given crimson clover will not make it grow successfully and it is now classed as a failure. Professor Georgeson, of the Kansas agricultural college, says they have tried to grow small areas of crimson clover for several years, and the effort has invariably resulted in failure. Being an annual plant, and a reputed nitrogen gatherer, it was thought expedient to introduce it in one of the rotations under experiment, but it was found to do so poorly that it was practically worthless. It can neither stand the dry summers, nor the cold winters. When sown in late summer, as is the practice here, Professor Georgeson found that only a small per cent would survive until spring. In no case has it compared favorably in yield or hardness with red clover. Just why farmers should sow an annual plant when the perennial alfalfa is so much better in every respect is past finding out. Alfalfa is still king of the clovers.

## NEW PASSENGER SERVICE.

From Kansas City Via the Burlington Route.

"DENVER SPECIAL" leaves Kansas City daily 10:50 a. m., solid train; arrives Denver, 7:30 a. m.

"BURLINGTON NEW LINE VIA BILLINGS," for Puget Sound and Pacific Coast from Kansas City, leaves at 10:50 a. m. daily.

This line gives patrons an opportunity to visit Hot Springs, South Dakota, Black Hills and Yellowstone Park, and it is the short line between Kansas City and Helena by 385 miles, Butte 315 miles, Spokane 474 miles, Seattle 140 miles and Tacoma 145 miles.

This is the most marvelous scenic route and perhaps the most interesting across the continent.

Round trip tickets to all Pacific coast points via this line.

For full information address H. C. Orr, Burlington Route, Kansas City, Mo.

### Cheap Excursions Via the Santa Fe Route.

For the meeting of the conclave Knights Templar and grand chapter Order Eastern Star, the SANTA FE ROUTE will sell tickets to WICHITA at one fare for the round trip, on May 12, 13 and 14, good to return until May 18.

For the grand lodge Knights of Pythias and brigade of Uniform Rank, tickets will be sold to HUTCHINSON at one fare for the round trip, on May 19 to 22, inclusive, good to return until May 25.

For the annual meeting of the Young People's Society of Christian Endeavor, tickets will be sold to WICHITA at one fare for the round trip, on May 22, 23 and 24, good to return until May 27.

On May 21, HOMESEEKERS' EXCURSION tickets will be sold to all points in Kansas, Oklahoma, Indian Territory, Texas, Colorado, Utah and New Mexico at one fare for the round trip, tickets limited twenty days for return, and stop-overs allowed at pleasure, except south of La Junta. No ticket will be sold for less than \$7.00.

SANTA FE ROUTE ticket offices, northeast corner Tenth and Main streets, 1050 Union avenue and Union depot.

GEORGE W. HAGENBUCH,  
Passenger and Ticket Agent.

### HALF RATE EXCURSIONS

To South Missouri, Arkansas and the Southeast.

On May 21 and June 11, round trip tickets to South Missouri, Arkansas and the South and Southeast, via the Memphis Route, Kansas City, Fort Scott & Memphis railroad, will be sold at rate of one fare with minimum rate of \$7.00. Tickets available for stop-off at intermediate stations. For detailed information, time, schedules and printed matter descriptive of the great stock raising and fruit growing sections of Missouri and Arkansas, address: J. E. LOCKWOOD, G. P. & T. A., Kansas City, Mo.

### Half Fare Homeseekers' Excursion.

On May 21 and June 11 the Union Pacific system will sell tickets from Kansas City, Leavenworth and stations in Kansas and Nebraska to points south and west in Nebraska and Kansas; also to Colorado, Wyoming, Utah and Idaho, east of Weiler and south of Deaver Canon, at rate of one first-class fare for the round trip. Minimum rate, \$7.00. Tickets good twenty days. See your nearest Union Pacific ticket agent. Best time and train service to Denver. Ticket offices, Kansas City, 1050 Main street, 1053 Union avenue and Union station. Telephone, 1109. J. B. FRAWLEY, General Agent.

### REMOVAL OF TICKET OFFICE

Of the New York, Chicago & St. Louis Railroad (Nickel Plate Road).

On May 1 the Chicago ticket office of the New York, Chicago & St. Louis railroad (Nickel Plate road) will be moved to No. 111 Adams street, opposite the postoffice. J. Y. CALAHAN, General Agent.

For the Old Time Confederate Boys' Reunion at Houston.

The "Katy" route, the Missouri, Kansas & Texas railway, will sell round trip tickets to Houston on May 18th, 19th and 20th, at one fare, \$22.75. Tickets limited to 15 days from date of sale.

Let all the old boys rally once again, and take advantage of this low rate to once more renew their youth.

Patronize the only direct line, with two trains a day, to Houston, the popular M. K. & T.

For all information, call at ticket offices, No. 823 Main street and 1941 Union avenue, opposite Union depot.

### New Dining Car Service.

It is a pleasure to note the addition of another important feature to the already competent train service of the Nickel Plate road. The dining car service of this popular low rate line has recently been augmented, by which dinner will be served on train No. 6, leaving Chicago at 2 p. m. daily, and breakfast and dinner on train No. 2, leaving Chicago daily at 9:20 p. m., with direct connections for New York and Boston. Breakfast and dinner will be served on train No. 7, arriving in Chicago at 9:25 p. m. from New York and Boston. For full information regarding routes, rates, maps, folders, etc., address your nearest ticket agent, or

J. Y. CALAHAN,  
General Agent, Chicago, Ill.

### New Sleepers on the Alton.

Beginning with April 1st, the Chicago & Alton railroad will run two sleepers daily in their "St. Louis Limited" between Kansas City and St. Louis. The two new sleeping cars assigned to this service are named the "Majestic" and "Toucan," after the two new White Star line Atlantic ocean steamers. Each year brings something new in the carbuilder's art and with each improvement we exclaim that surely nothing more can be added. Viewing the new Alton sleepers, with their large, roomy compartments, drawing rooms, and perfectly appointed toilet rooms, one would imagine the builder possessed the lamp of Aladdin.

### GOING TO CHICAGO TO-NIGHT?

The Burlington fast train "El" leaves at 6:50. The only line serving meals on the safe plan between Kansas City and Chicago, in addition to regular meal service. This entire train is equipped with all modern improvements. Service unexcelled.

A new dining car service between Chicago and Buffalo via the Nickel Plate road has recently been placed at the disposal of the traveling public, which will enable patrons of this favorite low rate line to obtain all meals on trains when traveling on through trains between Chicago, New York and Boston. For reservations of sleeping car space and further information, see your local ticket agent, or address:

J. Y. CALAHAN,  
General Agent, Chicago, Ill.

### GOING TO ST. LOUIS TO-NIGHT?

Burlington Route train leaves at 8:15 p. m. The only line running three sleepers with new elegant compartment berths and buffet. Service unsurpassed.